



VILLAGE OF KEY BISCAINE

August 5, 2005

FACTS ON OUR SEAWEED

Many residents have been noticing and reporting to the Village a seaweed problem on our beach.

Hurricane season is seaweed season as well. This is a natural recurring event we will likely experience throughout the summer.

Seaweed accumulation is dependent on the direction of the wind, current and tidal effect.

Our present beach profile shows that the near shore currents in front of Key Colony and Island House can be 2 to 10 times heavier than in the rest of the beach; further depositing sand and seaweed.

At the same time this process extracts from the beach in front of the Silver Sands, thus creating a cove. This big quantity of seaweed has been extremely beneficial in helping restore the cove in front of the Silver Sands.

After Dennis, we experienced post hurricane conditions. Dennis brought very high winds, a strong wave and tidal effect. These conditions created a depression in front of the Island House of 2 to 3 feet, generating a natural catch basin. Sargasso seaweed accumulated in this low lying stretch of beach.

The process of reintegrating the seaweed back into the sand is a big factor in keeping the beach from eroding.

This is not only an essential process but a slow one as well. The objective is to maintain the original profile of the beach, working the seaweed away from the salt water. The seaweed should not to be hauled away too fast from the shoreline because it will further contribute to erosion.

In turn, the once odorless seaweed will develop an ammonia gas smell and will turn brown when it remains wet on land; critters as small as barnacles on a board will emanate strong odors as well.

At the beginning of the season, we experienced a tropical depression that deposited a vast amount of seaweed mainly in front of Key Colony. Each isolated storm will bring its own variables.

After a storm, our beach contractor works extra hours in order to restore the beach to original conditions.

After Dennis, seventy five percent of the time was dedicated in front of Island House and Key Colony, where near shore currents dictated the most accumulation of the seaweed.

Please keep in mind that different parts of the beach endure different tidal currents. Beach erosion and seaweed deposit is a lesser occurrence in different parts of the beach.

Present Situation

According to our beach maintenance contractor, John Pearson from Universal Beach Services, we are experiencing the most extreme conditions seen in over ten years. For more than sixty days, a steady east wind has brought to our beach a two foot thick, fifteen foot wide stretch of seaweed, starting at the Silver Sands and ending at the Commodore Club. In addition to this, in the water there is a fifty foot wide island of seaweed waiting to come on to our beach.

The Village looked into the possibility of hauling the seaweed away from this area, situated on approximately 2,500 feet of beach. We would require at least 130 forty-foot containers, with an estimate cost of more than \$60,000 plus labor, and there is no guarantee this seaweed won't be back next morning.

We are still working on hauling a portion away in order to speed up the process of cleaning the beach.

The current new moon will bring an abnormal high tide this week. It could take a big amount of the floating seaweed away. A change of wind would also help in this unfavorable situation.

In the meantime, our beach contractor will work six days a week, with extra equipment, in an effort to restore our beach to its original condition.

If you have any questions, please contact Mariana Dominguez-Hardie, Assistant to the Director, Department of Public Works at (305) 365-8945.